

Aroostook Health District  
Burden of Injury  
2005-2009

Highlights

**Injury Deaths<sup>a</sup>**

- Injury was the underlying cause of death for 243 residents during this five year time period. There was an average of 49 injury deaths per year.
- The average annual injury death rate was 67.2 per 100,000 Aroostook residents.
- Injury was the underlying cause for 5.9% of all deaths among Aroostook residents.
- 74.5% of injury deaths were due to unintentional causes; 23% were due to intentional causes; 2.4% were coded as either undetermined intent or other.
- The three leading causes of injury deaths were unintentional motor vehicle traffic, suicide, and unintentional poisoning.

**Injury Hospital Discharges<sup>b</sup>**

- There were 2,679 hospital discharges of Aroostook residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 535 such discharges per year. 5.3% of hospital discharges were for an injury related cause.
- The average annual injury hospital discharge rate was 741.2 per 100,000 Aroostook residents. Aroostook residents aged 65+ years were significantly more likely to have a hospital discharge than were residents in other age groups.
- The injury hospital discharge rate for females (785.7 per 100K) was significantly higher than the rate for males (697.4 per 100K).
- 75.4% of injury hospital discharges were known to be due to unintentional causes; 7.8% were known to be due to intentional causes; 16.8% of injury cases were coded undetermined, other or missing.
- The three leading causes of injury hospital discharges were unintentional fall, unintentional motor vehicle traffic, and intentional self injury.

**Injury Outpatient Emergency Department Visits<sup>c</sup>**

- There were 54,015 outpatient emergency department visits for which an injury was the principal diagnosis during this 5 year period. There was an average of 10,803 visits per year. 22.4% of outpatient emergency department visits were for an injury related cause.
- The average annual injury outpatient emergency department visit rate was 14,943.6 per 100,000 Aroostook residents.
- The injury outpatient emergency department visit rate for males (16,553.3 per 100K) was significantly higher than the rate for females (13,422.2 per 100K).
- 67.8% of injury outpatient emergency department visits were known to be due to unintentional causes; 2.0% were known to be due to intentional causes; 30.2% of injury cases were coded undetermined, other or missing.
- The three leading causes of injury outpatient emergency department visits were unintentional fall, unintentional overexertion, and unintentional struck by/against.

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a Injury deaths defined as underlying cause of death coded as ICD-10 V01-Y36, Y85-Y87, Y89, U01-U03, Y40-Y59, Y60-Y84, or Y88

b Hospital discharge with injury principal diagnosis defined as principal diagnosis coded as ICD-9-CM 800-909.2, 909.4, 909.9-994.9, 995.5-995.59 or 995.80-995.85

c Outpatient emergency department visit with injury principal diagnosis defined as principal diagnosis coded as ICD-9-CM 800-909.2, 909.4, 909.9-994.9, 995.5-995.59 or 995.80-995.85, and discharge status coded as "Discharged to home or self care (routine discharge)" or "Discharged/transferred to home under care of organized home health service organization".

### Five Leading Causes of Injury Deaths Aroostook Health District, 2005-2009

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Motor vehicle traffic 53		Unintentional Motor vehicle traffic 5	Unintentional Motor vehicle traffic 11	Unintentional Motor vehicle traffic 14	Suicide 19	Unintentional Fall 21		Suicide 48	Unintentional Motor vehicle traffic 22
2	Suicide 53		Unintentional Fire/Hot Object 1  Homicide 1	Suicide 7	Suicide 12	Unintentional Motor vehicle traffic 12	Unintentional Unspecified 18		Unintentional Motor vehicle traffic 31	Unintentional Unspecified 12
3	Unintentional Poison 30			Unintentional Poison 3	Unintentional Poisoning 12	Unintentional Poison 12	Suicide 15		Unintentional Fall 20	Unintentional Poison 11
4	Unintentional Fall 27			Unintentional Drowning 1	Unintentional Land Transport 3	Unintentional Fall 5	Unintentional Motor vehicle traffic 11		Unintentional Poison 19	Unintentional Fall 7
5	Unintentional Unspecified 21			Unintentional Suffocation \ 1	Unintentional Drowning 2	Unintentional Land Transport 4	Unintentional Suffocation 9		Unintentional Suffocation 9	Suicide 5

**Five Leading Causes of Injury Hospitalizations  
Aroostook Health District, 2005-2009**

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 1,258		Unintentional Fall 26	Unintentional Motor vehicle traffic 49	Unintentional Fall 90	Unintentional Fall 259	Unintentional Fall 861		Unintentional Fall 446	Unintentional Fall 812
2	Unintentional Motor vehicle traffic 188		Unintentional Transport, other 10	Intentional Self Injury 47	Intentional Self Injury 80	Unintentional Motor vehicle traffic 48	Other Adverse Effects 46		Unintentional Motor vehicle traffic 132	Intentional Self Injury 107
3	Intentional Self Injury 187		Unintentional Poison 9	Unintentional Transport, other 28	Unintentional Motor vehicle traffic 51	Intentional Self Injury 47	Unintentional Unspecified 35		Unintentional Transport, other 101	Unintentional Motor vehicle traffic 56
4	Unintentional Transport, other 129			Unintentional Fall 22	Unintentional Transport, other 35	Unintentional Transport, other 38	Unintentional Motor vehicle traffic 33		Intentional Self Injury 80	Unintentional Poison 49
5	Unintentional Poison 87		Unintentional Other, specified 8	Undetermined Poison 10	Unintentional Poison 16	Unintentional Poison 32	Unintentional Poison 25		Unintentional Struck By/Against 39	Other Adverse Effects 41

**Five Leading Causes of Injury Emergency Department Visits  
Aroostook Health District, 2005-2009**

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 11,085		Unintentional Fall 2,453	Unintentional Struck by/against 1,417	Unintentional Fall 2,102	Unintentional Fall 2,335	Unintentional Fall 2,805		Unintentional Fall 4,979	Unintentional Fall 6,104
2	Unintentional Overexertion 5,394		Unintentional Struck by/against 1,457	Unintentional Fall 1,390	Unintentional Overexertion 1,804	Unintentional Overexertion 1,224	Unintentional Overexertion 508		Unintentional Struck by/against 3,195	Unintentional Overexertion 2,792
3	Unintentional Struck by/against 5,222		Unintentional Overexertion 656	Unintentional Overexertion 1,202	Unintentional Struck by/against 1,161	Unintentional Cut/pierce 855	Unintentional Struck by/against 375		Unintentional Overexertion 2,599	Unintentional Struck by/against 2,026
4	Unintentional Cut/pierce 3,586		Unintentional Cut/pierce 539	Unintentional Cut/pierce 757	Unintentional Cut/pierce 1,136	Unintentional Struck by/against 812	Unintentional Cut/pierce 299		Unintentional Cut/pierce 2,378	Unintentional Cut/pierce 1,207
5	Unintentional Other specified, Classifiable 2,252		Unintentional Other specified, Classifiable 499	Unintentional Motor vehicle traffic 716	Unintentional Other specified, Classifiable 640	Unintentional Other specified, Classifiable 517	Unintentional Unspecified 273		Unintentional Other specified, Classifiable 1,532	Unintentional Motor vehicle traffic 1,046

**Maine Injury Prevention Program – Four Priority Injury Indicators**  
**Injury Deaths**  
**Aroostook Health District, 2005-2009**

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Unintentional Motor vehicle traffic 53		Unintentional Motor vehicle traffic 5	Unintentional Motor vehicle traffic 11	Unintentional Motor vehicle traffic 14	Suicide 19	Unintentional Fall 21		Suicide 48	Unintentional Motor vehicle traffic 22
Suicide 53			Suicide 7	Suicide 12	Unintentional Motor vehicle traffic 12	Suicide 15		Unintentional Motor vehicle traffic 31	Unintentional Poison 11
Unintentional Poison 30			Unintentional Poison 3	Unintentional Poison 12	Unintentional Poison 12	Unintentional Motor vehicle traffic 11		Unintentional Fall 20	Unintentional Fall 7
Unintentional Fall 27				Unintentional Fall 1	Unintentional Fall 5	Unintentional Poison 3		Unintentional Poison 19	Suicide 5

**Maine Injury Prevention Program – Four Priority Injury Indicators**  
**Injury Hospitalizations**  
**Aroostook Health District, 2005-2009**

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Unintentional Fall 1,258		Unintentional Fall 26	Unintentional Motor vehicle traffic 49	Unintentional Fall 90	Unintentional Fall 259	Unintentional Fall 861		Unintentional Fall 446	Unintentional Fall 812
Unintentional Motor vehicle traffic 188		Unintentional Poison 9	Intentional Self Injury 47	Intentional Self Injury 80	Unintentional Motor vehicle traffic 48	Unintentional Motor vehicle traffic 33		Unintentional Motor vehicle traffic 132	Intentional Self Injury 107
Intentional Self Injury 187		Unintentional Motor vehicle traffic 7	Unintentional Fall 22	Unintentional Motor vehicle traffic 51	Intentional Self Injury 47	Unintentional Poison 25		Intentional Self Injury 80	Unintentional Motor vehicle traffic 56
Unintentional Poison 87		Intentional Self Harm 4	Unintentional Poison 5	Unintentional Poison 16	Unintentional Poison 32	Intentional Self Injury 9		Unintentional Poison 38	Unintentional Poison 49

**Maine Injury Prevention Program – Four Priority Injury Indicators**  
**Injury Emergency Department Visits**  
**Aroostook Health District, 2005-2009**

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Unintentional Fall 11,085		Unintentional Fall 2,453	Unintentional Fall 1,390	Unintentional Fall 2,012	Unintentional Fall 2,335	Unintentional Fall 2,805		Unintentional Fall 4,979	Unintentional Fall 6,104
Unintentional Motor Vehicle Traffic 2,035		Unintentional Motor Vehicle Traffic 149	Unintentional Motor Vehicle Traffic 716	Unintentional Motor Vehicle Traffic 590	Unintentional Motor Vehicle Traffic 414	Unintentional Motor Vehicle Traffic 166		Unintentional Motor Vehicle Traffic 988	Unintentional Motor Vehicle Traffic 1,046
Unintentional Poisoning 293		Unintentional Poisoning 88	Intentional Self Injury 93	Intentional Self Injury 99	Unintentional Poisoning 71	Unintentional Poisoning 49		Unintentional Poisoning 156	Intentional Self Injury 146
Intentional Self Injury 253		Intentional Self Injury 15	Unintentional Poisoning 42	Unintentional Poisoning 43	Intentional Self Injury 41	Intentional Self Injury 5		Intentional Self Injury 107	Unintentional Poisoning 137

## Data Sources

Deaths: 2005-2009 death certificate statistical datasets obtained from the Office of Data, Research and Vital Statistics, Maine analysis includes all deaths to Maine residents, regardless of the state where the death occurred.

Hospital Discharges: 2005-2009 hospital discharge (inpatient) datasets obtained from the Maine Health Data Organization. Analysis limited to discharge of Maine residents from Maine acute care hospitals (excludes psychiatric, rehabilitation and federal hospitals)

Outpatient ED Visits: 2005-2009 hospital outpatient datasets obtained from the Maine Health Data Organizations. Analysis limited to ED visits by Maine residents at Maine acute care hospitals (excludes psychiatric, rehabilitation and federal hospitals) where the person was discharged to home or self care.

Population Estimates: Annual estimates of the resident population by age, sex, race and Hispanic origin for counties: April 1, 2000 to July 1, 2009.



## Injury Definitions

<b>Unintentional Injury</b>	<b>Definition</b>
Fall	When an individual sustains an injury after an unintentional descent from any height
Motor Vehicle	An incident involving a motorized vehicle and at least one injured individual, where that individual is a vehicle occupant, passenger or driver; a motorcyclist
Pedestrian	Injuries caused in transport and non-transport related crashes
Transport, Other	All transportation injuries not included in motor vehicle, pedestrian or bicycle injuries
Fire/Hot Substance	Severe exposure to flames, heat, chemicals or hot substance that leads to tissue damage of the skin or places deeper in the body; injury from smoke inhalation to the upper airway, lower airway or lungs
Firearm	Penetrating force injury resulting from a bullet or other projectile shot from a powder charged gun (handgun, shotgun, unspecified firearm)
Poisoning	Ingestion, inhalation, absorption through the skin, or injection of so much of a drug, toxin, or other chemical that a harmful effect results. This category does not include harmful effects from normal therapeutic drugs or bacterial illnesses
Suffocation	Inhalation, aspiration or ingestion of food or other object that blocks the airway or causes suffocation; intentional or accidental mechanical suffocation caused by hanging, strangulation, lack of air in a closed place, plastic bag, or falling earth. This category does not include injury resulting from a foreign body that does not block the airway.
Natural/Environmental Causes	Injury resulting from exposure to adverse natural and environmental conditions, i.e. severe heat, severe cold, lightning, sunstroke, tornadoes and natural disasters as well as lack of food or water.
Struck By/Against	Injury resulting from being struck by (i.e. hit) or crushed by a human, animal, or inanimate object or force other than a vehicle or machinery; injury caused by striking (i.e. hitting) against a human, animal or inanimate object or force other than a vehicle or machinery
Cutting/Piercing	Injury resulting from an incision, slash, perforation or puncture by a pointed or sharp instrument, weapon or object
Overexertion	Injury resulting from excessive physical exercise (i.e. lifting, pulling, pushing). Strenuous movements in recreational and other activities
Drowning	Suffocation resulting from submersion in water or other liquid
Late effects	Late effect or sequela resulting from a previous injury or poisoning

Unspecified	Information missing on mechanism (.i.e. motor vehicle, firearm, hanging) of the injury
Other	Injury associated with any other specified cause that does not fit another category
<b>Intentional Injury</b>	<b>Definition</b>
Abuse and Neglect	Injury resulting from abuse or criminal neglect
Physical Force	Injury resulting from fight, brawl, rape, includes beating with hands, fists, feet
Cutting/Piercing	Injury resulting from an incision, a slash, a perforation, or a puncture by a pointed or sharp instrument, weapon or object
Firearm	Penetrating force injury resulting from a bullet or other projectile shot from a powder charged gun (handgun, shotgun, military firearm, unspecified firearm)
Homicide	All fatal injuries purposely inflicted by other persons, excluding legal intervention by law enforcement agents
Struck	Injury resulting from striking by blunt or thrown object
Other	Injury associated with any other specified cause that does not fit another category
<b>Self Injury</b>	<b>Definition</b>
Drug and Medicinal Substances	Injury resulting from poisoning by drug and medicinal substances (i.e. analgesics, barbiturates, tranquilizers, etc)
Cutting/Piercing	Injury resulting from cutting, piercing instrument
Firearm	Penetrating force injury resulting from bullet or other projectile shot from a powder charged gun
Jump	Injury resulting from jumping from high places
Hang	Mechanical suffocation caused by hanging or strangulation or physical constriction of the neck, resulting in air loss
Suicide	All fatal injuries which are self inflicted
Other	Injury associated with any other specified cause that does not fit another category
<b>Undetermined Intent</b>	<b>Definition</b>
Poisoning	Injury resulting from poisoning by solid or liquid substance, including drugs and medicinal substances but undetermined whether unintentionally or intentionally inflicted
Unspecified	Information missing on mechanism (i.e., motor vehicle, firearm, hanging) of the injury

